

Segmentation of the Lending Markets

By Elena Loutskina



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The Effects of Competition on Consumer Credit Markets

Stefan Gissler, Federal Reserve Board

Rodney Ramcharan, University of Southern California

Edison Yu, Federal Reserve Bank of Philadelphia

Non-bank Lending

Sergey Chernenko, Purdue University

Isil Erel, The Ohio State University

Robert Prilmeier, Tulane University

What Drives Global Syndication of Bank Loans? Effects of Capital Regulations

Janet Gao, Indiana University

Yeejin Jang, Purdue University



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What informs this discussion?

STRESS TESTS AND SMALL BUSINESS LENDING,

with Kristle Cortes, University of New South Wales; Yuliya Demyanyk, Federal Reserve Bank of Cleveland; Lei Li, University of Kansas; and Philip E. Strahan, Boston College & NBER.

THE TASTE OF PEER-TO-PEER LOANS

with Yuliya Demyanyk, Federal Reserve Bank of Cleveland.

MORTGAGE COMPANIES AND REGULATORY ARBITRAGE

with Yuliya Demyanyk, Federal Reserve Bank of Cleveland, 2016.

FISCAL STIMULUS AND CONSUMER DEBT, with Yuliya Demyanyk, Federal Reserve Bank of Cleveland, and Daniel Murphy, UVA, Darden School.



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ARE BANK LOANS SPECIAL?

Consumers	SME	Medium Public Firms	Large Public Firms
Banks	Banks	Banks	Banks

Gorton and Winton (2003)

“Since monitoring is costly, it is efficient to delegate the task to special agent, the bank.”

“Overwhelming proportion of every dollar financed externally comes from banks”

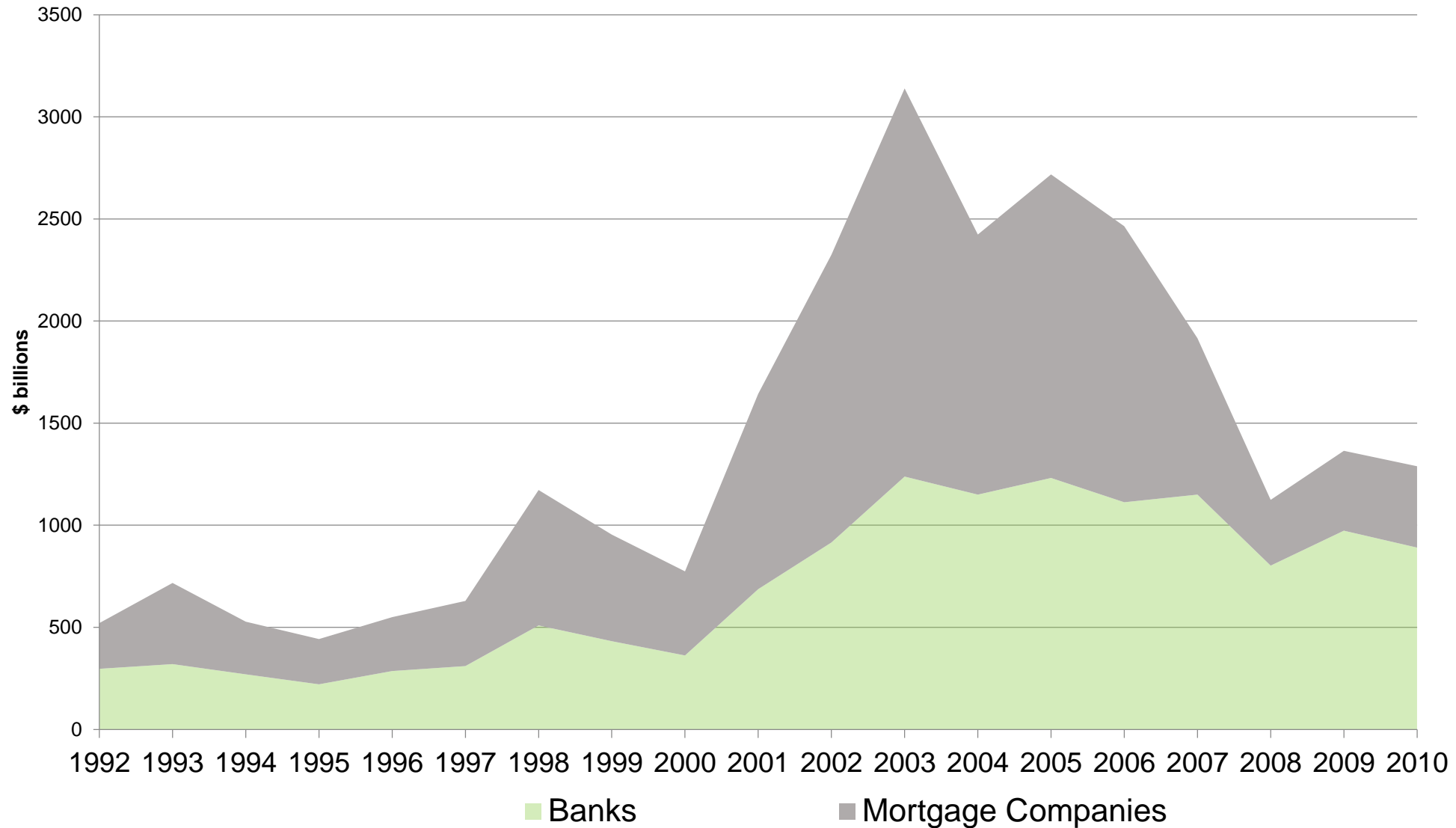


ARE BANK LOANS SPECIAL?

- Institutional investors invaded syndicated loan market (e.g., Ivashina and Sun, 2011; Jiang et al, 2010; Irani and Meisenzahl, 2017; Irani et al, 2018).
- Institutional investors prefer riskier syndicated loans (Lim, Minton and Weisback, 2011; Ivashina and Sun, 2011)
- Firms with the highest credit quality borrow from public sources, firms with medium credit quality borrow from banks, and firms with the lowest credit quality borrow from non-bank private lenders. (Carey, Post, and Sharpe, 1998; Denis and Mihov, 2003).
- Hedge funds serve as lenders of last resort to firms that may find it difficult to borrow from banks or issue public debt (Agarwal and Meneghetti, 2011).



MORTGAGE ORIGINATIONS



ARE BANK LOANS SPECIAL?

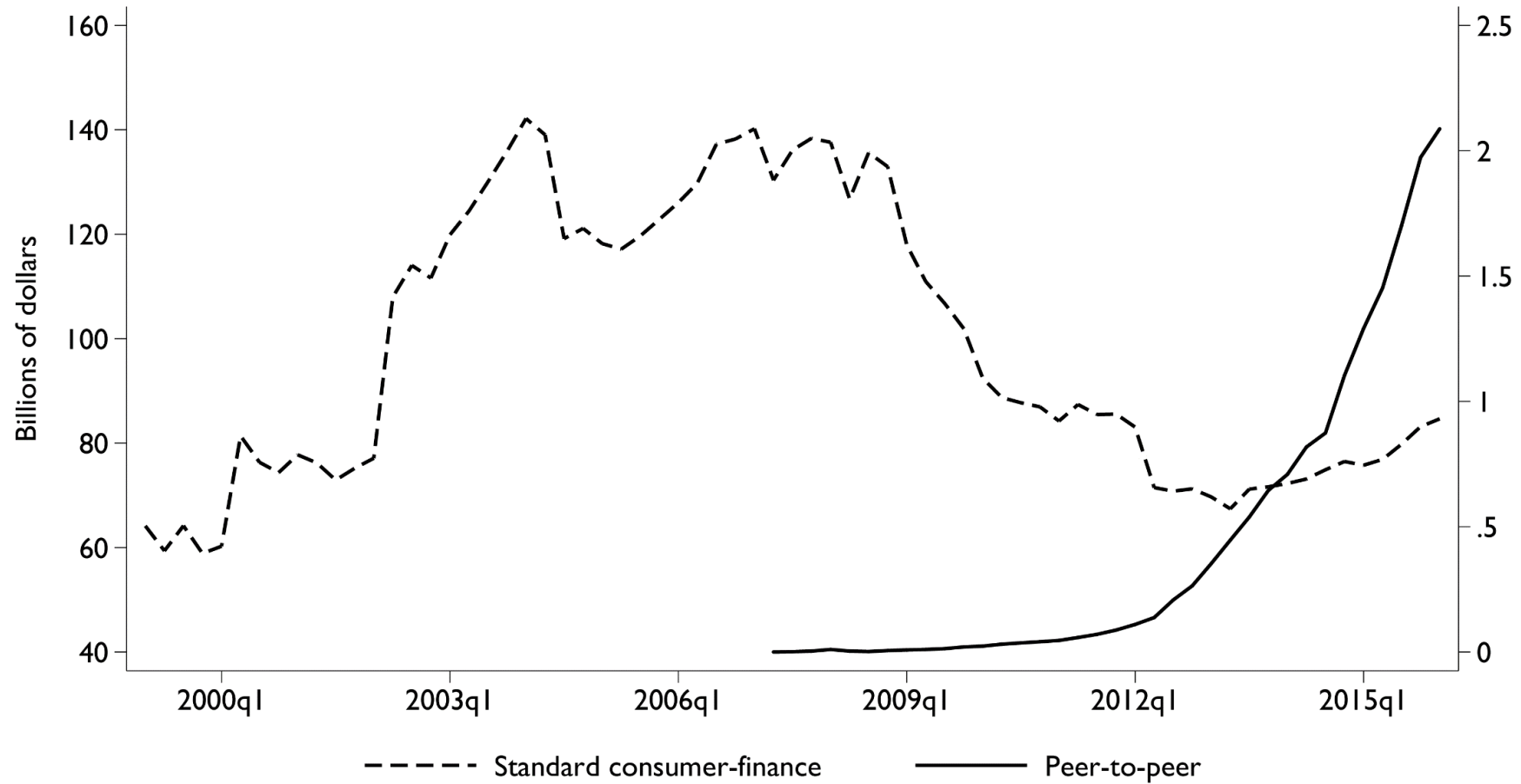
Consumers	SME	Medium Public Firms	Large Public Firms
Banks Non-Bank Lenders Mortgage companies	Banks	Banks	Banks Syndicated Loans Lots of non-banks Commercial Paper Public Bond Market



MARKETPLACE LENDERS

Consumer	                 
Pay Day	       
Purchase Finance	        
Education Financing	     
Real Estate	       
Merchant Cash Advance	       
SMB Credit	                 

CONSUMER FINANCE



ARE BANK LOANS SPECIAL?

Consumers	SME	Medium Public Firms	Large Public Firms
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- How important are these lenders?
- What entities benefit from non-banks' activity? Why?
- Are they complements of substitutes for the traditional banks?
- What factors drive the entry for these lenders?
- What are the implications for the economic stability of the U.S. financial system?



HOW IMPORTANT ARE NON-BANK LENDERS?

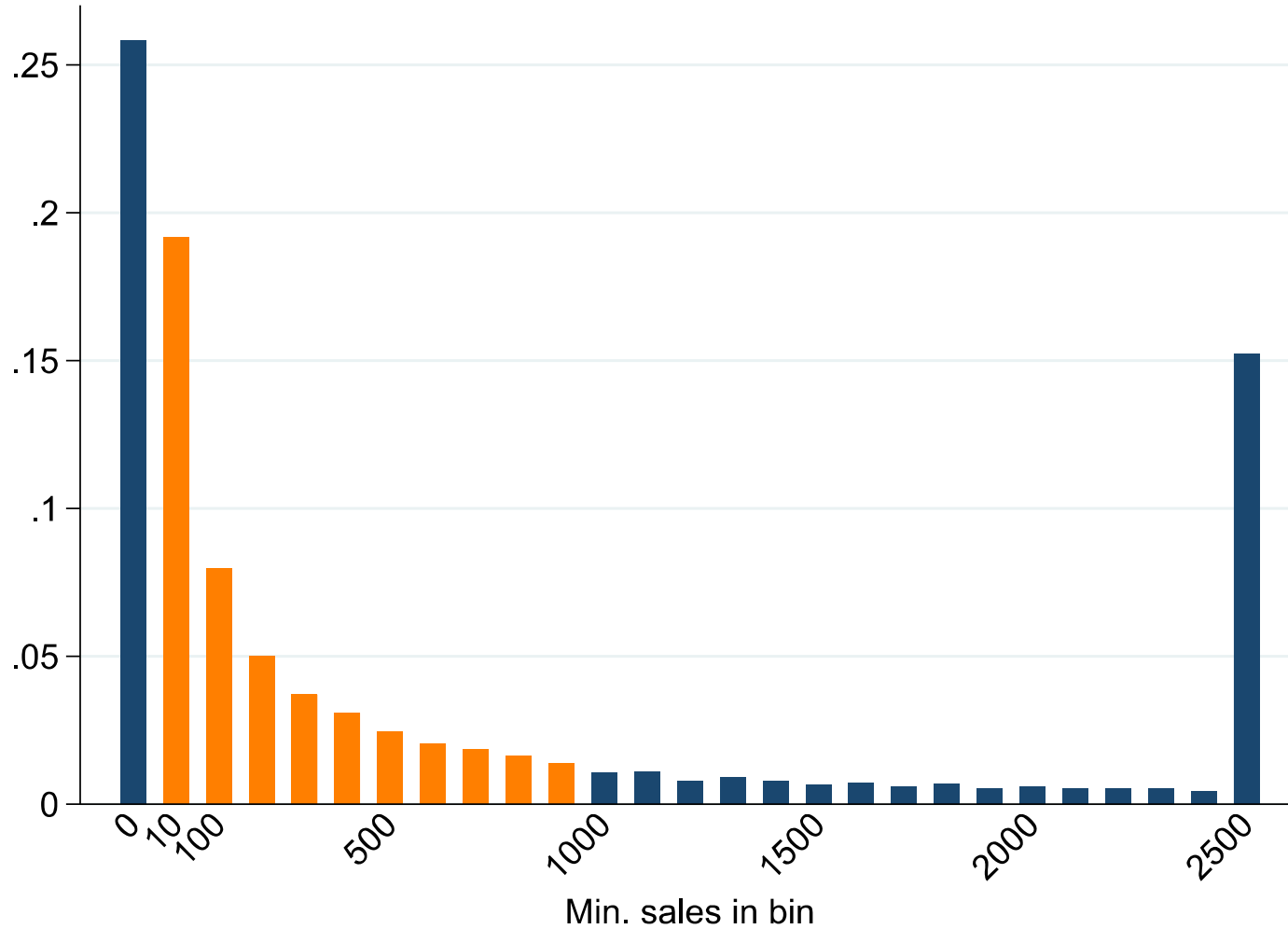
non-bank Lending

By Sergey Chernenko, Purdue University; Isil Erel, The Ohio State University; and Robert Prilmeier, Tulane University

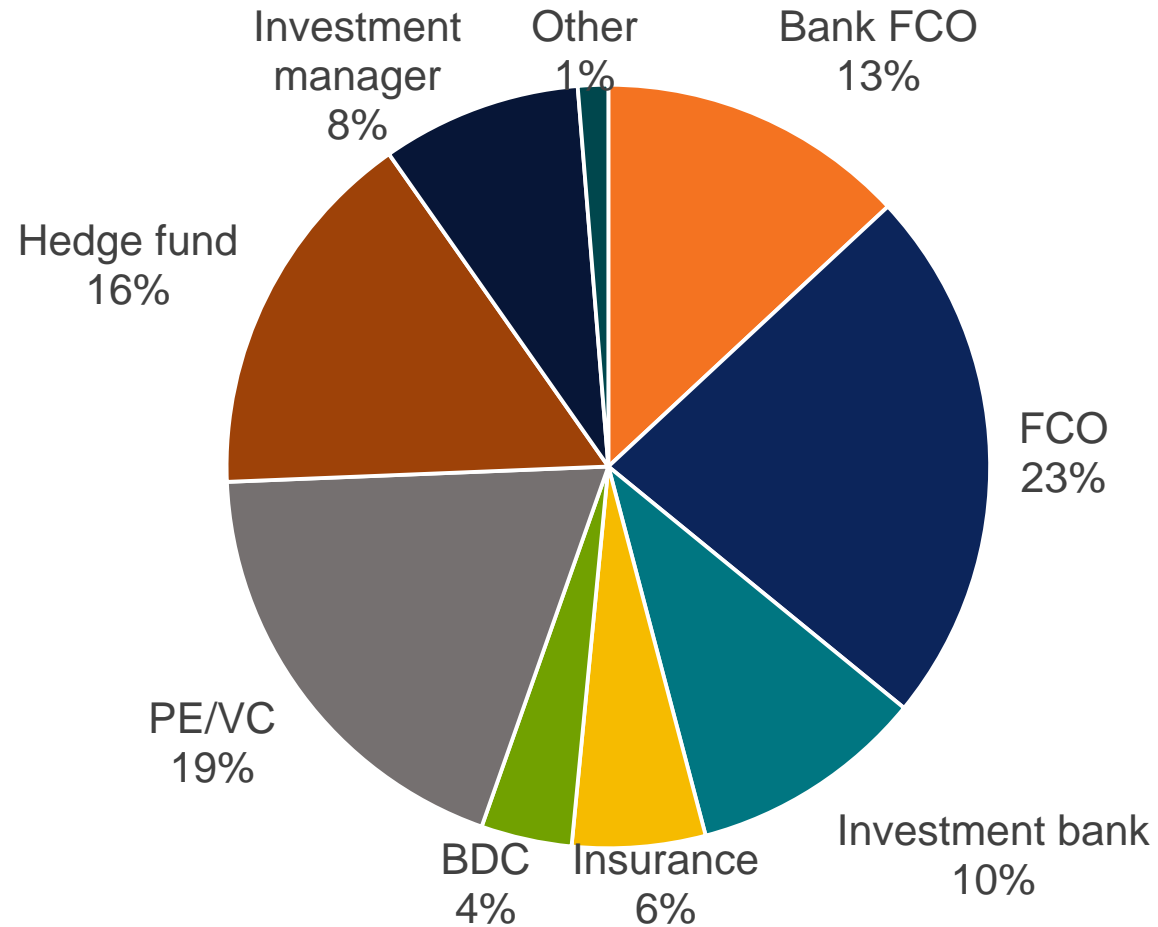
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NON-BANK LENDING



NON-BANK LENDING

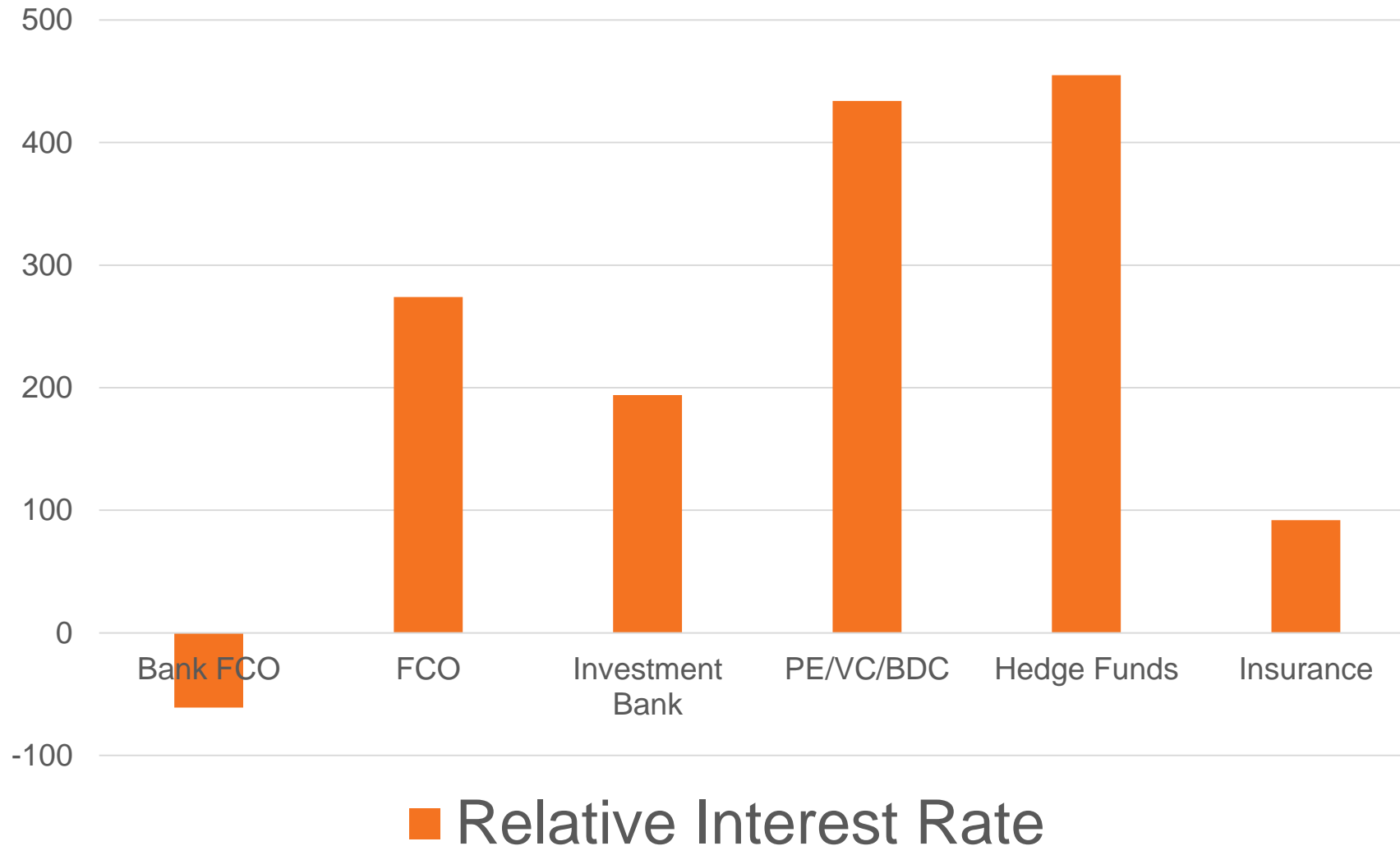


NEW EVIDENCE

- The role of non-banks is significant even in the information intensive middle market firms credit market
 - 32% of the loans is originated by non-bank lenders (2010-2015).
- non-bank borrowers are riskier
 - Firms with negative EBITDA are 32% more likely to get credit from a non-banks than firms with positive EBITDA
- non-banks loans are more expensive
 - 196 basis points higher interest rates
 - Shorter maturity
 - Warrants attached but fewer covenants
- They definitely benefit the borrowers
 - Significantly higher announcement returns



ARE ALL NON-BANKS CREATED EQUAL?



ECONOMIC RATIONALE

- Asset liability maturity mismatch? Maybe
 - non-banks lend to riskier borrowers
 - Harder to screen
 - Harder to monitor
 - Harder to formulate covenants (EBITDA <0)
 - Solution
 - Price the risk: interest plus warrants plus fees
 - Shorten the maturity
 - Monitor through refinancing



DO BANKS COMPETE IN THIS SEGMENT OF THE MARKET?

- Regulatory barriers (more on this later)
 - Capital requirements affects banks (i) ability to extend credit, (ii) risk taking and (iii) incentives to screen/monitor borrowers.
- Competition
 - Firms located in areas where local banks are poorly capitalized and in more competitive markets are more likely to turn to non-bank lenders.
- How big is the overlap of banks and no-banks lending markets?



NON-BANKS UNDER COMPETITIVE PRESSURES

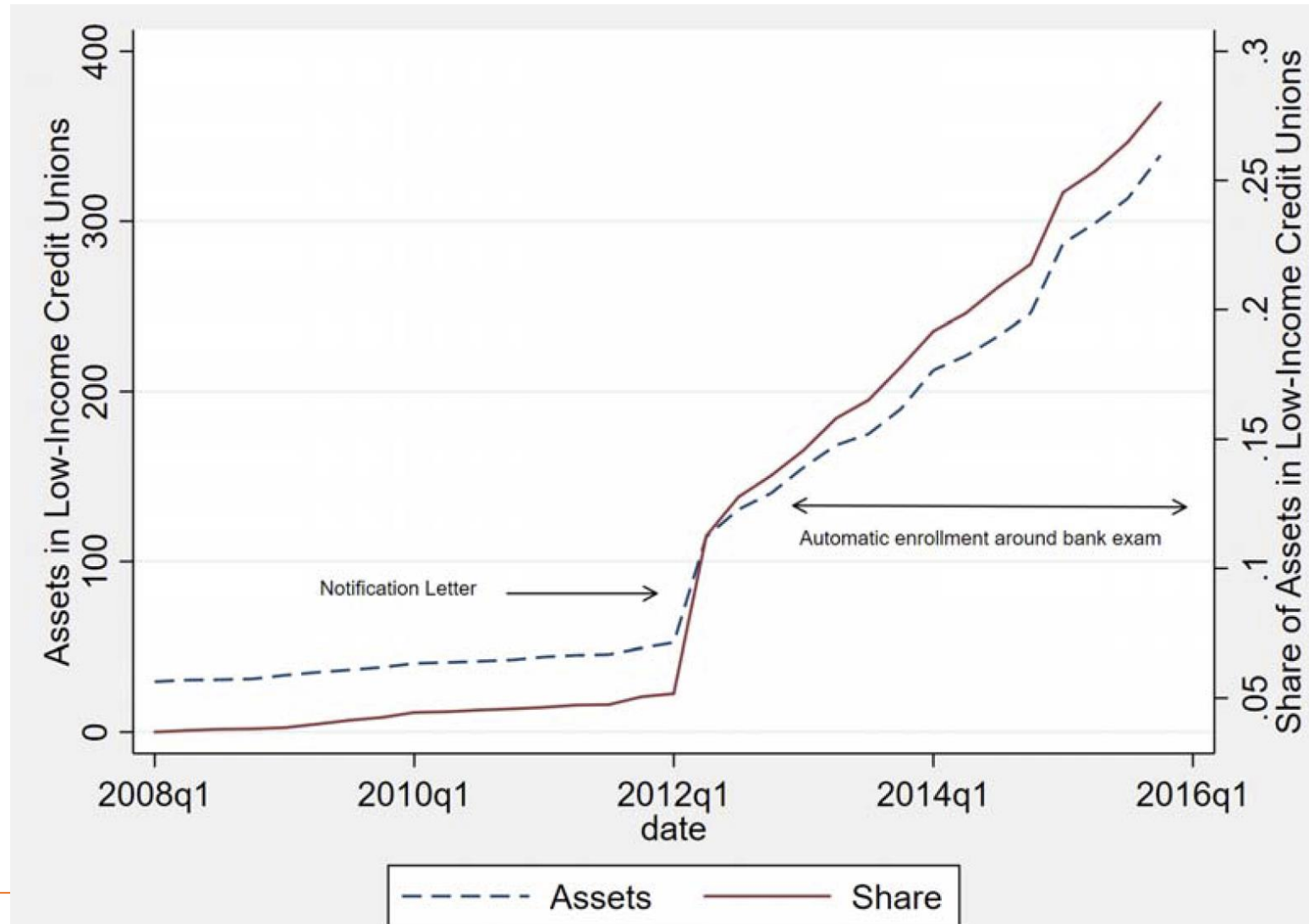
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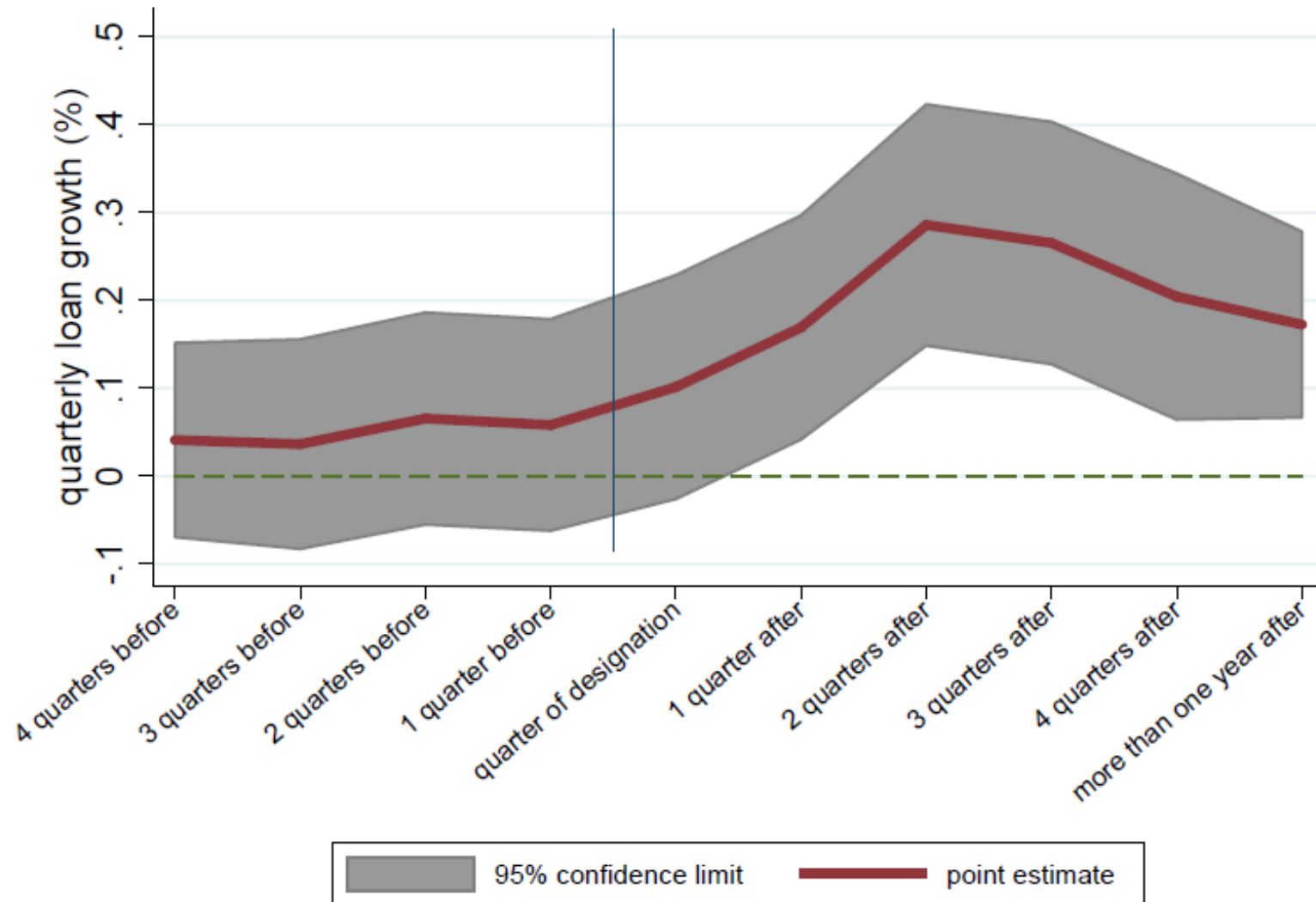
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NEW COMPETITION FROM CREDIT UNIONS



NEW COMPETITION FROM CREDIT UNIONS

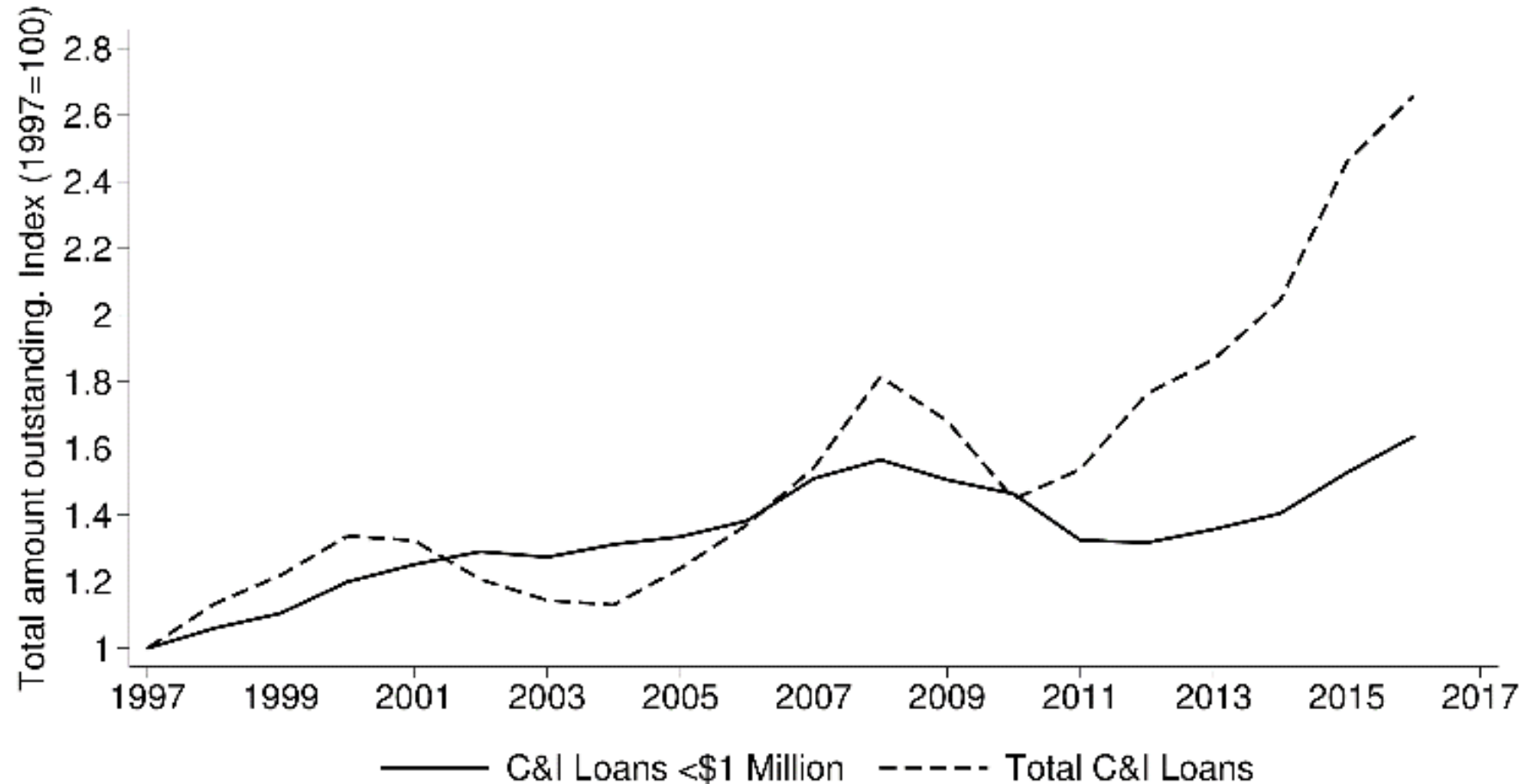


EFFECT OF NEW COMPETITION ON BANKS

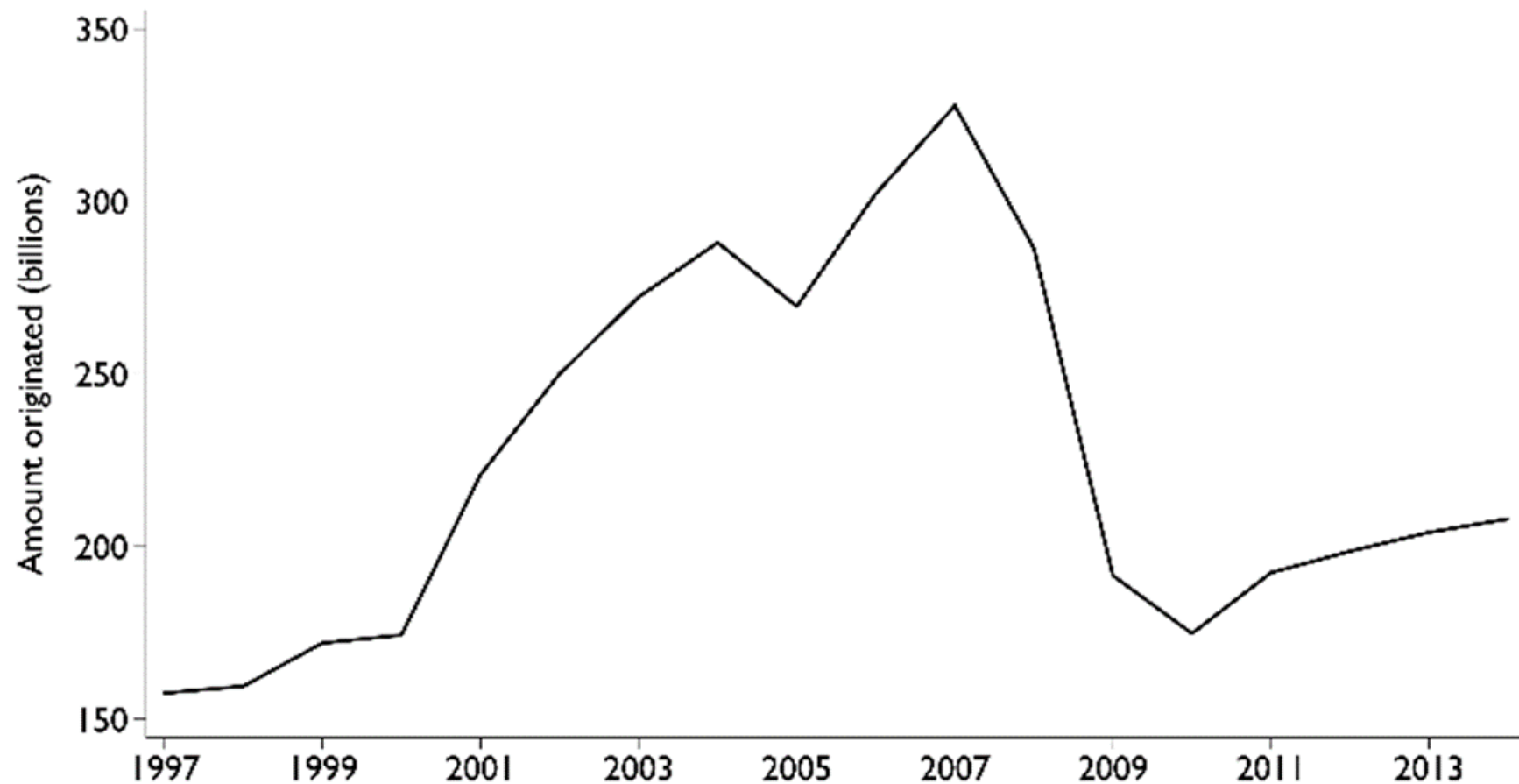
- Decline in deposit growth
- Increase in local banks' deposits prices (CDs)
- Marginal decline in (quoted) auto loan prices
 - But not effect on mortgage prices
- ***Reallocation of credit toward C&I loans***
- Weaker banking institutions fail



BANKS ON-BALANCE-SHEET LOAN VOLUMES

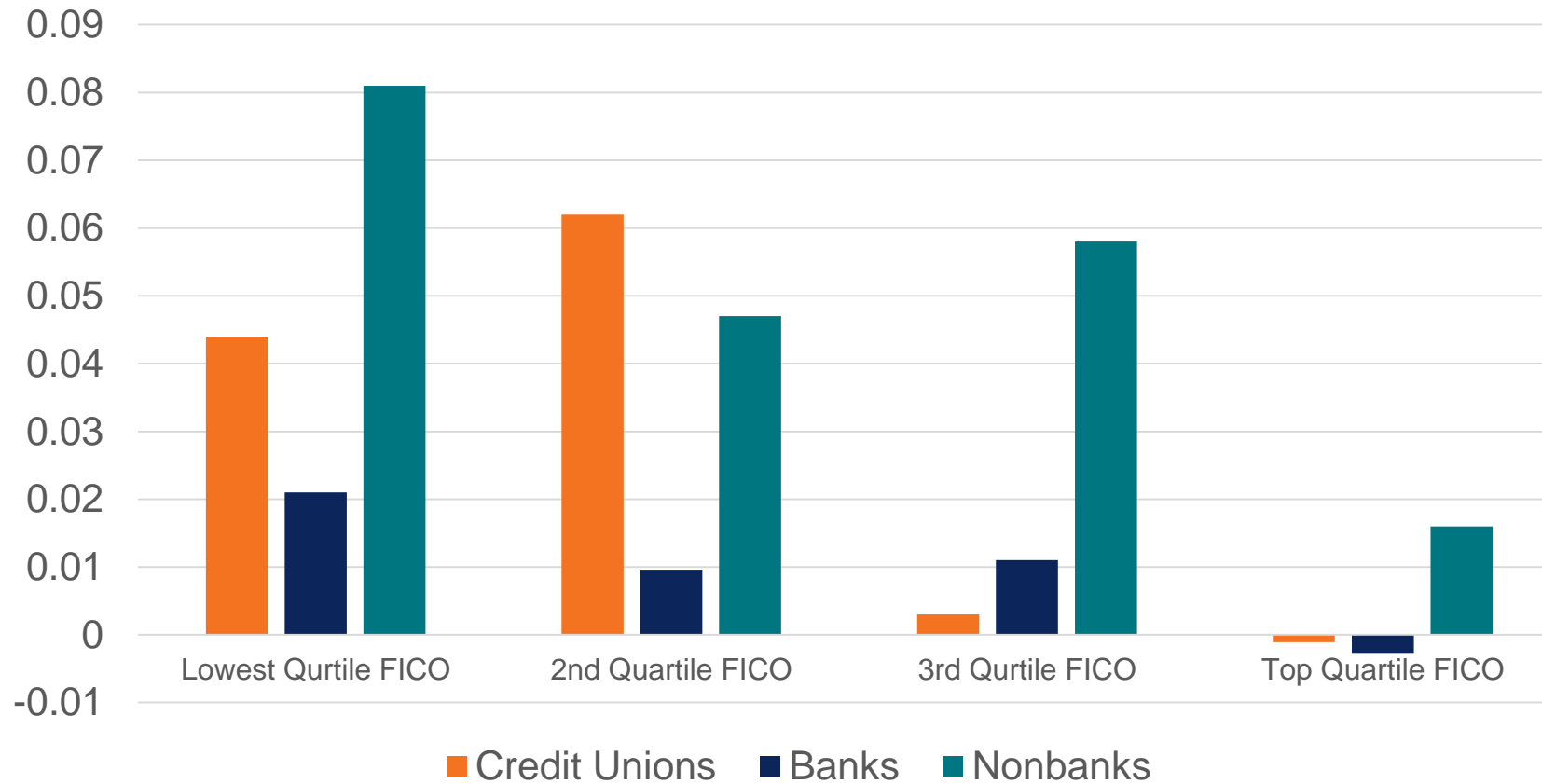


BANKS SMALL BUSINESS LOAN ORIGINATIONS



WHAT ABOUT NON-BANKS?

Growth in Auto-loans



WHAT ABOUT NON-BANKS?

- Non-banks expand even more than credit unions
- Both pursue riskier set of borrowers
 - Race to the bottom?
- Higher default rates

NON-BANK LENDERS CLAIM RISKIER SEGMENTS OF THE MARKET

- Two very different markets
 - Medium public enterprises: non-homogeneous loans with uncertain degree of collateralization
 - Collateralized highly homogenous auto-loans
- Why?

REGULATORY PRESSURES AND BANK LENDING

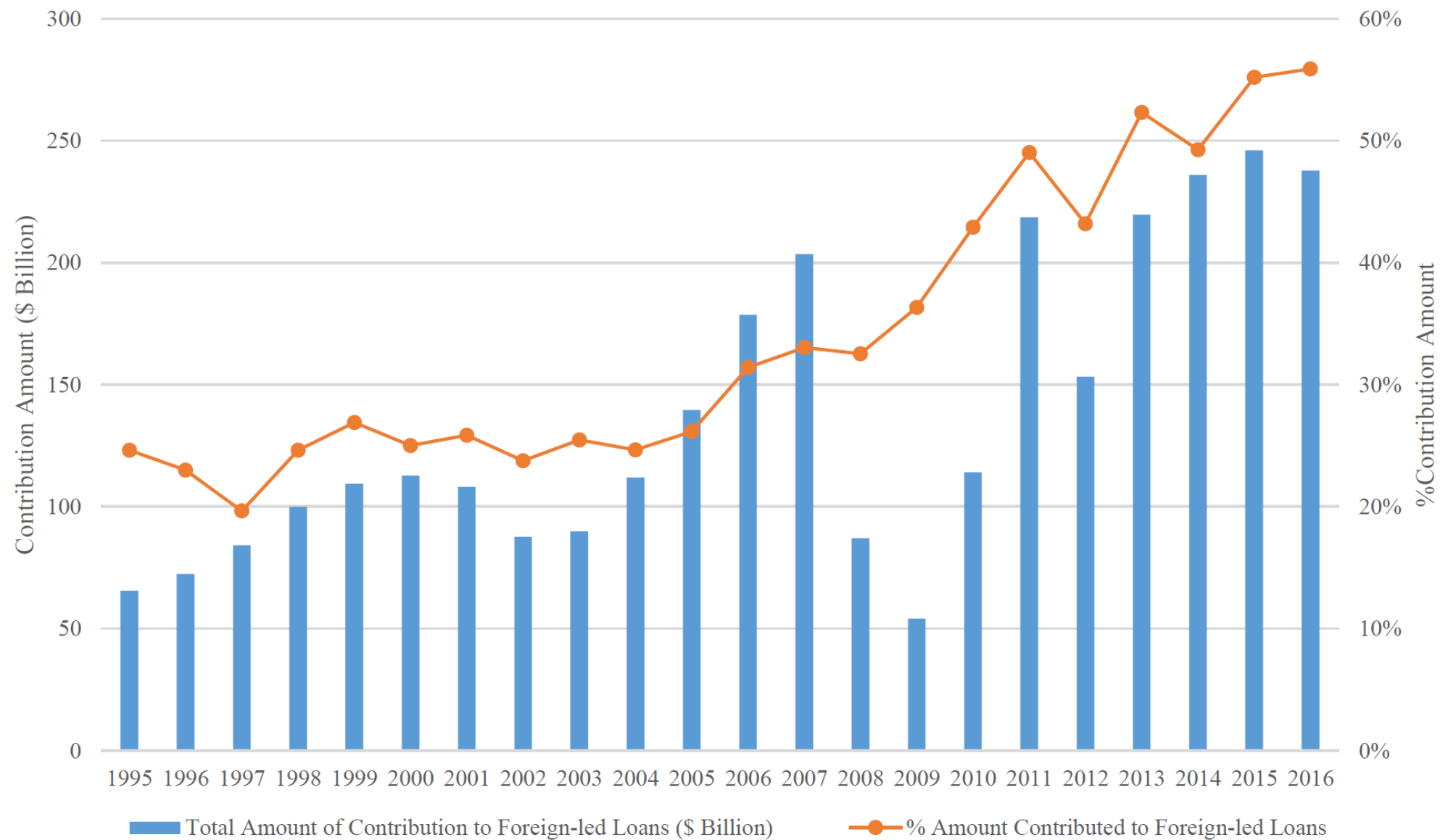
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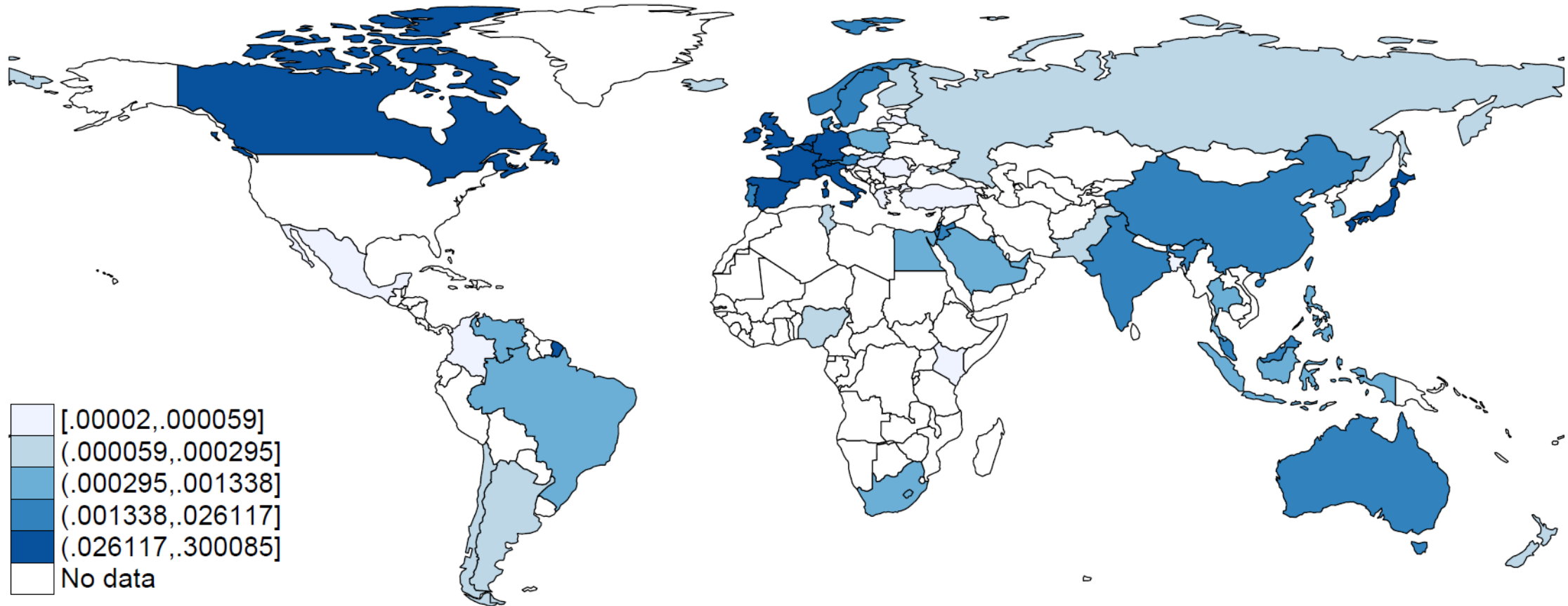
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US Banks' Participation in Foreign-led Loans



#Loans Participated with U.S. Lead Lenders



HOW CAN REGULATION AFFECT LENDING?

- **Pure cost of capital story**
 - Lead arrangers want cheaper capital from banks in less regulated countries [Kashyap, Stein, and Hanson (2010), Baker and Wurgler (2015)]
- **Regulatory Arbitrage**
 - Banks circumvent strict regulations in home countries by investing in loosely regulated countries: Barth et al. (2004), Houston, Lin, and Ma (2012), Karolyi and Taboada (2015)



HOW CAN REGULATION AFFECT LENDING

- Higher capital requirements
 - More expensive capital
 - Be lead arranger and attract less expensive capital from less regulated banks
 - Less incentives to monitor
 - Delegate monitoring to others and become non-lead syndicate member
- Try to circumvent regulations
 - Become a syndicate participant which potentially allows to obscure level of risk
 - This strategy would be less effective in more transparent environment



CORE RESULTS

- Lenders from strictly regulated countries invest more in syndicates where lead arranger is less regulated
- These loans are riskier and deliver higher returns
 - Reaching for the yield?
- The effect is less pronounced in more transparent regulatory environments

CORE RESULTS

Dependent Var:	<i>Loan Spread</i>	<i>Loan Default</i>
<i>Lead Stringency</i>	2.528 (0.63)	0.020 (0.69)
<i>Participant Stringency</i>	1.297*** (3.86)	0.011** (2.49)
Firm Chars & Loan Chars	Yes	Yes
Borrower Industry FE	Yes	Yes
Year FE	Yes	Yes
Lead Country FE	Yes	Yes
Observations	25,288	25,198
Adjusted R^2	0.496	0.0934



PUTTING IT ALL TOGETHER

- Competitive pressures push the banks towards larger loans
- In these C&I loan markets non-bank lenders directly compete with banks and are ready to serve smaller and riskier borrowers that banks are unable or unwilling to serve
- Regulatory pressures push banks to arbitrage risk
 - Participate in syndicates where lead arranger is less regulated
 - Lend to non-banks
- Non-banks are “immune” to competitive pressures
- Non-banks seem to be in a race to the bottom



WHY SHOULD WE CARE?

- Who lends to marginal borrowers?
 - Small and medium business?
 - Consumers?
- How stable is the capital base of non-bank lenders?
- What are the economic mechanism that would allow monetary or fiscal authority to stabilize these source of funding in case of a recession?
- Are banks still special?

A sepia-toned photograph of a university campus. In the foreground on the left, a large bronze statue of a man in a suit stands with his back to the camera, holding a rolled-up document. In front of him is a circular stone fountain. The background features a wide, tree-lined walkway leading to a large, classical-style building with a central pediment and columns. The sky is filled with soft, white clouds.

Thank you.



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